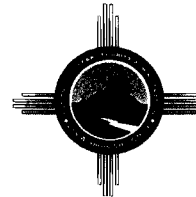


TA03

ENTERED



Environmental Protection Division  
Water Quality & RCRA Group (ENV-RCRA)  
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Los Alamos, New Mexico 87545  
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National Nuclear Security Administration  
Los Alamos Site Office, A316  
3747 West Jemez Road  
Los Alamos, New Mexico 87545  
(505) 667-7203/FAX (505) 667-5948

Date: October 19, 2010  
Refer To: ENV-RCRA-10-197  
LAUR: 10-06946, 09-08094

Mr. Doug Hopinkah  
New Mexico Environment Department  
Albuquerque (District Office)  
5500 San Antonio Dr., NE  
Albuquerque, NM 87109



Dear Mr. Hopinkah:

**SUBJECT: LANL RESPONSE - NOTICE OF VIOLATION LOS ALAMOS NATIONAL LABORATORY EPA ID # NM0890010515**

On September 20, 2010, the National Nuclear Security Administration (NNSA) and Los Alamos National Security, LLC (LANS) received a Notice of Violation (NOV) from the New Mexico Environment Department (NMED) concerning a December 1, 2009 compliance evaluation inspection conducted at LANL. NMED provided NNSA/LANS until October 20, 2010 to file a response in this matter. The NOV contains two allegations: (1) NNSA/LANS failed make a proper hazardous waste determination for metal shavings located at Satellite Accumulation Area (SAA) 5053, and (2) NNSA/LANS failed to obtain a permit to store certain hazardous waste at SAA 3181. The following response is based on a careful review of the NOV and underlying facts. For the reasons stated below, and based on the new information provided herein, we respectfully request that the NMED determine that further enforcement is unwarranted under these circumstances.

**Violation No. 1**

The NOV alleges that LANL failed to make a proper hazardous waste determination for metal shavings located at SAA 5053 at TA-3-I02, and states as follows:

*The waste was being managed as low-level radioactive (LLR) waste only. LANL used analytical data from a field portable x-ray fluorescence (XRF) instrument to screen for concentrations of metals. LANL claimed that the waste was non-hazardous based of the "twenty times rule". The HAZCAT XRF analytical data dated 1113/09*



*(Sample 09CATIOI and/or 09RCRA971) showed a selenium concentration of 32.85 ± 10.8 ppm. LANL claimed that the hazardous waste determination was based on these results alone. The selenium concentration would have to be below 20 ppm to be considered nonhazardous using the twenty times rule. Based on these results a TCLP test should have been performed to confirm whether or not the waste was below the regulatory limit of 1 ppm selenium for toxicity characteristic waste before declaring the waste to be nonhazardous. Furthermore, the XRF analysis did not contain any data for silver, barium, or cadmium and LANL did not provide any other knowledge of process information or analytical data to support its claim that the waste did not exhibit the characteristic of toxicity. This is a violation of 20.4.1.300 NMAC, incorporating 40 CFR 262.11.*

### LANL Response

At the time of NMED's inspection, SAA 5053 contained a 14-gallon polyurethane drum (#10108571) that was conservatively managed as low-level mixed waste. The purpose of the hazardous waste determination under NMED's rules at §262.11 is to determine whether a solid waste is "hazardous" and must be managed in a RCRA-complaint storage unit. NNSA/LANS respectfully disagrees with the NOV allegation that the "waste was being managed as a low-level radioactive waste (LLW) only". The waste in question was being "managed" conservatively in SAA 5053 because at that time, NNSA/LANS did not have enough information to determine that the waste was LLW only. NMED and EPA rules allow a facility to conservatively manage waste as a "hazardous waste" in a RCRA-regulated unit like a SAA when information is insufficient to establish that it is non-RCRA regulated.

In addition, NNSA/LANS undertook a hazardous waste determination when it performed analytical screening using the *NITON XLP Analyzer*, a high performance field portable x-ray fluorescence (XRF) instrument. It was not claimed that this waste stream "met the "twenty times" rule as alleged. Instead, on July 7, 2009 ENV-RCRA Compliance Sampling Program received gamma spectroscopy radionuclide analytical data for the waste in question with reported activities of Uranium235 at 4.09E-6, and Uranium 238 at 4.99E-4 (see Enclosure A). The data was measured in curie amounts of uniform activity. Based on the radioactive activity of the 14-gallon drum, ENV-RCRA chose to perform the XRF method on the drum in question due to the gamma spectroscopy results and *As Low As Reasonably Achievable* (ALARA) requirements. ENV-RCRA also determined that due to ALARA concerns and the radioactive activity the drum could not be characterized for RCRA toxicity characteristic thresholds using standard industry methods such as the SW-846 TCLP Method.

NNSA/LANS would also like to address the concern that the XRF did not analyze for silver, barium or cadmium. The XRF method is an EPA-approved method (SW-846 Method 6200) for analyzing elemental concentrations and applies to intrusive analysis for 26 analytes, including silver, barium and cadmium. The SW-846 Method 6200 lower limit of detection for selenium is 40 (SW-846 Method 6200, page 25) (see Enclosure B). Method 6200 determines that an XRF instrument cannot detect selenium below 40 parts per million (ppm). The results of the XRF for the drum showed that selenium at 32 ppm, which is below 40 ppm and below the lower limit of detection for an XRF instrument. XRF instruments are preprogrammed by the manufacturer to contain libraries of interest.

The NITON XLp 700 was programmed by the manufacturer to perform analysis on 26 elements, which include the eight (8) RCRA regulated elements. After analysis, the XRF data results screen shows only elements that have been potentially detected, and all other elements in the 26 element library are non-detect (see Enclosure C).<sup>1</sup>

## **Violation # 2**

The NOV alleges that LANL failed to obtain a permit to store hazardous waste at TA-3-29 Room 9163, Wing 9 Hot Cell (SAA 3181), stating, in part:

*LANL failed to obtain a permit for storage hazardous waste at TA-3-29 Room 9163, Wing 9 Hot Cell (SAA #3181). The hot cell was storing a small volume of mixed hazardous and radioactive waste. The recovery process that generated the waste ceased in 2005. The original generator is no longer managing this waste and waste has not been added to the container since November 2005. Therefore the waste does not qualify for management using the satellite accumulation requirements. A large quantity generator who stores waste on-site for greater than 90 days is an operator of a storage facility and is subject to the permit requirements of 40 CFR Part 270, unless an extension has been granted to the 90-day period. This is a violation of 20.4.1.300 NMAC, incorporating 40 CFR 262.34(b), and 20.1.4.900 NMAC, incorporating 40 CFR 270.1(c).*

## LANL Response

For the reasons described below, NNSA/ LANS respectfully request that the Hazardous Waste Bureau re-evaluate the facts upon which this allegation is based. The facts demonstrate that the hazardous waste in question (a 5-gallon container of radioactive lead parts) qualifies for storage in SAA 3181, and fully meets the requirements of §§ 262.34(c)(1)(i) and (ii). Further, NMED rules contain no time limitations regarding the length of time in which hazardous waste can be stored in a SAA. The facts show that the radioactive lead was generated within 15-feet of the SAA and, at all times, was under control of the operator of the process that generated the waste. There is no evidence that this SAA or the hazardous waste in question was mismanaged or posed a threat to human health or the environment.

### 1. *NMED/EPA Rules on SAA's*

NMED rules, incorporating EPA rules at § 262.34(c)(1), allow storage of hazardous waste in a SAA. There are three criteria that must be met to qualify as an SAA:

- *Volume* – not to exceed 55-gallons of hazardous waste or 1 quart of acutely hazardous waste

---

<sup>1</sup> XRF results can be viewed in two different modes: the *spectrum* mode, which shows the element peaks detected by the instrument, and the *data* mode which shows the measurements result screen. Elements that do not indicate peaks in the spectrum mode and are not specified in the data mode are considered non-detect.

- *Location* – containers must be “*at or near any point of generation where wastes initially accumulated*”
- *Control* – containers must be “*under control of the operator of the process generating the waste*”

A facility that meets these three SAA criteria can store hazardous waste indefinitely and without a RCRA permit, and must comply with requirements at §§262.34(c)(1)(i) and (ii). NMED rules do not require that hazardous waste stored at a SAA be associated with an on-going process, and do not specify a time-frame for storage of hazardous waste without a permit so long as the three criteria above are met.<sup>2</sup> Further, NMED rules do not require SAA containers to be marked with an accumulation start date until the day that the volume of waste exceeds 55 gallons.

## 2. *Facts*

In 2005, SAA 3181 was established at TA-3-29, Room 9163 Wing 9 Hot Cell. SAA 3181 was set up to support processes conducted at the CMR facility (Chemistry and Metallurgy Research) by a group named “*NMT-11*” in the Nuclear Materials Technology Division. After reorganization, this group later became “*Inorganic Isotope & Actinide Chemistry*” or “*C-IIAC*” (also called the “*operating group*”). The operating group, in turn, managed the established SAA 3181 as a protective measure in the event that processes associated with experiments conducted by this group generated future low-level mixed radioactive waste. The processes and experiments conducted by this group at TA-3-29 are on-going and entitled “*The Receipt, Characterization and Testing of Irradiated Materials*” and require the use of remote hot cell operations at CMR. NMT-11/C-IIAC is the organization within LANL responsible for managing waste located at SAA 3181. As discussed below, this operating group designated a specific individual as the “*owner*” of the SAA responsible for waste management from the date the SAA was established until it closed.

Over the past five years, only one hazardous (mixed) waste stream was produced as a result of the processes and experiment conducted at CMR. This waste stream was a 5-gallon container of mixed waste consisting of radioactive lead parts. The lead was generated as the result of activities conducted by the operating group, and specifically from an irradiation experiment received in CMR Wing 9 and transferred into Hot Cells 10 and 12 for processing. The assembly was taken apart and the irradiated materials were studied (evaluated for damage) using an optical microscope. In 2005, the operating group determined that it no longer needed the radioactive lead parts and this waste was assigned the hazardous waste code D008 (see Enclosure D). The radioactive lead parts were moved from the point of initial accumulation (Hot Cells 10 and 12) approximately 15 feet to SAA 3181 (Hot Cell 11, Rm 9163). The radioactive lead was placed into a 5-gallon pail inside a 30-gallon drum for storage in SAA 3181. At the time of the inspection, SAA 3181 contained the 5-gallon container of radioactive lead parts. On September 7, 2010, SAA 3181 was closed and the waste was transferred to an off-site facility for disposal (see Enclosure E).

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<sup>2</sup> EPA did not put any restrictions on the types of hazardous waste stored in a SAA or on the amount of time that wastes may be stored in these areas. See U.S. EPA, Memorandum from Springer to RCRA Directors, *Frequent Questions about Satellite Accumulation Areas* (March 17, 2004) (other citations omitted).

### 3. *Short Analysis*

Based on these facts, NNSA/LANS submits that the storage of radioactive lead in SAA 3181 fully met the applicable criteria under NMED rules at § 262.34(C)(1). First, the SAA contained a five-gallon container of radioactive lead (hazardous waste (D008), which is far below the volume limit of 55-gallons. Second, the radioactive lead waste was stored in a SAA "*at or near any point of generation where wastes initially accumulated*": the waste was initially accumulated as a result of experiments in Hot Cells 10 and 12 which are located approximately 15 feet from the SAA 3181. Third, the radioactive lead waste managed at the SAA was at all times "*under control of the operator of the process generating the waste*". Significant physical and administrative controls were in place to ensure that the SAA remained under control of the generator consistent with NMED and EPA guidance (see NMED Letter regarding Satellite Accumulation Area (SAA) Policy dated May 31, 1996). The SAA was controlled by lock and key under control of the operating group (NMT-11/C-IIAC). The CMR building and Hot Cells are located within a secured area with access authorized only to trained individuals and by badge. Hot cells within the CMR building are locked, and keys located in a key box. Only authorized personnel have access to these keys. The procedure for opening and closing hot cell doors is "*CIAC-CMR-IWD-001 Hot Cell and Corridor Operations*" and pertinent sections can be reproduced if necessary.

A few points, however, should be clarified. First, the NOV states that the "original generator is no longer managing this waste". Although the basis for this statement is unknown, the facts do not support this statement. The radioactive lead was generated from activities conducted by the operating group, and this group has always been responsible for managing the contaminated lead and SAA 3181. The operating group designates a *specific individual* within the group as the "owner" of the SAA. This individual, in turn, may change over time. Since 2005, the operating group has designated the following three individuals as an "owner" of the SAA: (1) Mr. Wayne Taylor (November 2005 – November 6, 2006); (2) Dr. Richard Mason (November 7, 2006 – November 19, 2007), and (3) Dr. William Crooks (November 20, 2007 – September 7, 2010 (SAA closure) (see Enclosure F)). Although Mr. Taylor changed job positions in 2006, the responsibilities for managing SAA 3181 and the radioactive lead waste did not cease but were assumed by Dr. Mason and Dr. Crooks, the newly designated individuals within the group. Second, the fact that this waste was stored for 5 years and that no waste was added to the SAA would not result in a violation of SAA rules, which contain no time limits or requirements that SAAs contain more than one waste stream. NNSA/LANS will continue to review its SAA policies and procedures to ensure that hazardous waste is properly managed in SAAs at the facility in compliance with all applicable regulatory requirements and best management practices.

We appreciate the opportunity to address your concerns, and look forward to an amicable resolution of these issues. Please let us know if there is any further information or documentation we can provide to facilitate resolution of these issues.

Sincerely,



Anthony R. Grieggs  
Group Leader  
Water Quality & RCRA Group  
Los Alamos National Laboratory

Sincerely,



Gene E. Turner  
Environmental Permitting Manager  
Environmental Projects Office  
Los Alamos Site Office  
National Nuclear Security Administration

ARG:GET:MH/lm

Enclosures: a/s

Cy: James Bearzi, NMED/HWB, Santa Fe, NM, w/enc.  
Art Vollmer, NMED/HWB, Santa Fe, NM, w/enc.  
Steve Pullen, NMED/HWB, Santa Fe, NM, w/enc.  
Sandra Martin, NMED/District I, Albuquerque, NM, w/enc.  
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Michael B. Mallory, PADOPS, w/o enc., A102  
J. Chris Cantwell, ADESHQ, w/o enc., K491  
Mark Haagenstad, ENV-RCRA, w/enc., (E-File)  
Geri Martinez, ENV-RCRA, w/o enc., (E-File)  
Susan McMichael, LC-LESH, w/enc., A187  
ENV-RCRA File, w/enc., K490  
IRM-RMMSO, (U1002101) w/enc., A150

**Enclosure A**

**Gamma Spectroscopy Radionuclide Analytical Data**

**LA-UR 10-06946**

LA-UR 10-06946

Item: 14 Gallon Poly Drum # 10108571  
File ID: 06110901.RPu

## Model

Type: Cylinder  
Height (in): 12.00  
Diameter (in): 12.00  
Volume (ft<sup>3</sup>): 0.79  
Detector Location  
Distance (in): 16.00  
Height (in): 6.00  
Left of Center (in): 0.00  
Detector: Tweety  
Collimator: Tweety:ScooBy @356

Waste Matrix: Paraffin (75.00%)  
Waste Matrix Density (g/cm3): 8.900E-1  
Secondary Matrix: Soil:10%H2O (25.00%)  
Package Weight (lbs): 70.00  
Packing Efficiency: 1.604  
Waste Matrix Eff. Density: 1.428E+0  
Item Weight: N/A

Wall Material  
Primary: Paraffin  
Secondary: None  
Tertiary: None  
Wall Thickness (in)  
Primary: 0.125000  
Secondary: 0.000000  
Tertiary: 0.000000  
Wall Material Density (g/cm3)  
Primary: 8.900E-1  
Secondary: 0.000E+0  
Tertiary: 0.000E+0  
Count Time (sec): 600  
Altitude (ft): 7000.00  
Rate Loss Correction Factor: 1.000  
Lump Correction: None  
Thickness (microns): 0

Analyst: Scott Ferran  
Notes: None

Item: 14 Gallon Poly Drum # 10108571  
File ID: 06110901.RPu

## Summary:

Nuclide	Uniform Activity (Ci)	Uniform Conc (nCi/g)	Uniform SNM mass (g)	+2s Error (%)
U235	4.09E-6	1.29E-1	1.89E+0	100
U238	4.99E-4	1.57E+1	1.50E+3	100

## Detail:

Nuclide	Energy (keV)	Yield (gps/dps)	Net Counts (counts)	Bkg Counts (counts)	Intrinsic Efficiency (cps/gps)	Uniform Activity (Ci)	Uniform MDA (Ci)	Uniform Conc (nCi/g)	Uniform MDA Conc (nCi/g)	Uniform SNM mass (g)	+2s Error (%)
Pa234m	1001.00	8.37E-3	6891	78	2.264E-1	4.99E-4	3.19E-6	1.57E+1	1.00E-1	1.50E+3	83.95
U235	185.74	5.72E-1	6459	1598	6.582E-1	4.09E-6	1.20E-7	1.29E-1	3.77E-3	1.89E+0	381.13

## Analysis Report for Peak Doctor Version Version 1.0.9

Date of analysis: Jun 18, 2009

RobWin has to be here as a token string for SNAP.

Detector Calibration: Tweety

Spectrum ID: 06110901

Analysis Energy Range: 42.032keV to 2000.0keV

## Egy(keV) FWHM Area +/-Area Background

60.48 0.708 5246 97.3 1053.3  
89.77 0.933 24222 184.2 2429.4  
91.83 0.926 4288 114.1 2185.4  
95.64 0.801 7852 118.9 1568.5  
108.37 1.008 2689 103.6 2009.9  
110.04 1.010 1896 94.4 1752.8  
111.94 1.012 1286 82.9 1398.1  
128.50 0.521 171 52.1 636.2  
141.12 0.816 950 69.2 958.8  
160.70 0.800 591 63.6 863.1  
183.15 0.833 6459 98.3 799.1  
199.72 0.585 146 45.4 479.3  
202.76 0.779 513 55.3 634.8  
236.25 0.778 120 46.1 501.7  
255.82 0.898 843 53.3 498.6



349.95 1.069 105 38.4 343.0  
 508.74 2.009 254 42.3 383.5  
 567.41 1.413 219 33.1 219.5  
 581.28 0.988 111 26.4 146.0  
 607.49 1.226 141 28.1 161.9  
 652.18 1.694 79 29.6 199.6  
 689.81 0.953 71 22.6 109.6  
 700.45 1.315 83 26.3 151.8  
 732.13 1.199 103 25.5 137.0  
 741.36 1.400 850 38.5 157.9  
 764.99 1.289 2811 57.9 134.0  
 780.28 1.031 78 21.6 97.5  
 784.87 1.396 503 31.9 127.9  
 804.58 1.355 69 22.4 108.2  
 879.31 1.487 186 21.8 72.3  
 882.05 1.382 182 21.1 66.2  
 897.62 1.458 62 18.0 65.1  
 909.90 1.057 70 15.8 45.3  
 920.61 1.141 106 17.2 47.7  
 925.28 2.142 218 23.9 88.5  
 944.94 1.514 272 22.4 57.8  
 967.94 1.199 43 14.2 40.0  
 994.01 1.529 53 14.9 41.8  
 1000.11 1.513 6891 84.0 39.4  
 1119.55 0.920 33 9.8 16.0  
 1193.19 1.536 90 13.7 24.6  
 1237.29 1.881 50 12.9 29.1  
 1434.45 2.688 58 12.6 25.3  
 1460.83 1.786 705 27.4 12.0  
 1510.47 1.653 97 11.7 10.1  
 1554.03 1.224 45 8.8 7.9  
 1737.70 1.570 75 9.7 4.4  
 1738.90 1.570 62 9.0 4.4  
 1765.40 2.419 96 11.0 6.6  
 1832.11 1.866 102 11.3 6.3  
 1911.93 1.615 38 7.4 4.3

## Peak Analysis:

Peak No.	Name	Energy	Branch Ratio	Peak Area	Cont. Counts	Corr. Energy
1	Th234	63.29	4.84E-02	5246	2106	63.319
2	Th234	92.57	5.58E-02	24222	4858	92.549
3	U-Ka2	94.65	2.82E-01	4288	4370	94.605
4	U-Ka1	98.43	4.51E-01	7852	3136	98.407
5	U-Kb1	111.30	1.07E-01	2689	4018	111.112
6	X-Ray	N/A	N/A	1896	3504	112.778
7	U-Kb2	114.45	4.15E-02	1286	2796	114.674
8	Pa234	131.29	2.00E-01	171	1272	131.201
9	U235	143.79	1.10E-01	950	1916	143.795
10	U235	163.38	5.08E-02	591	1726	163.336
11	U235	185.74	5.72E-01	6459	1598	185.740
12	U235	202.14	1.08E-02	146	958	202.276
13	U235	205.33	5.01E-02	513	1268	205.310
14	Pb212	238.58	4.36E-01	120	1002	238.732
15	Pa234m	258.18	7.28E-04	843	996	258.263
16	Pb214	351.87	3.71E-01	105	686	352.202
17	Annih.	511.00	1.00E+00	254	766	510.670
18	Pa234	569.47	1.07E-01	219	438	569.221
19	Tl208	583.02	3.10E-01	111	292	583.063
20	Bi214	609.31	4.61E-01	141	322	609.220
21	Multi	N/A	N/A	79	398	653.819
22	Pa234m	691.00	7.80E-05	71	218	691.373
23	Pa234m	701.85	7.08E-05	83	302	701.991
24	Pa234	733.32	8.60E-02	103	274	733.607
25	Pa234m	742.82	8.00E-04	850	314	742.818

26	Pa234m	766.41	2.94E-03	2811	268	766.401
27	Pa234m	781.37	7.78E-05	78	194	781.660
28	Multi	N/A	N/A	503	254	786.240
29	Pa234m	805.87	4.30E-05	69	216	805.910
30	Pa234	880.50	1.30E-01	186	144	880.489
31	Pa234m	883.24	3.50E-05	182	132	883.223
32	Pa234	898.65	4.10E-02	62	130	898.762
33	Ac228	911.21	2.90E-01	70	90	911.017
34	Pa234m	921.96	1.27E-04	106	94	921.705
35	Pa234	925.70	1.39E-01	218	176	926.366
36	Pa234m	946.02	9.90E-05	272	114	945.986
37	Ac228	968.97	1.74E-01	43	80	968.939
38	Pa234m	995.00	4.10E-05	53	82	994.956
39	Pa234m	1001.00	8.37E-03	6891	78	1001.044
40	Multi	N/A	N/A	33	32	1120.242
41	Pa234m	1193.74	1.35E-04	90	48	1193.733
42	Multi	N/A	N/A	50	58	1237.743
43	Pa234m	1434.30	9.68E-05	58	50	1434.504
44	K40	1460.83	1.07E-01	705	24	1460.830
45	Pa234m	1510.11	1.29E-04	97	20	1510.369
46	Pa234m	1553.58	8.08E-05	45	14	1553.841
47	Pa234m	1737.80	2.11E-04	75	8	1737.139
48	Pa234m	1737.80	2.11E-04	62	8	1738.336
49	Bi214	1764.49	1.59E-01	96	12	1764.783
50	Pa234m	1831.30	1.72E-04	102	12	1831.357
51	Pa234m	1911.44	6.28E-05	38	8	1911.016

**Enclosure B**

**SW-846 Method 6200, Table 1**

## METHOD 6200

### FIELD PORTABLE X-RAY FLUORESCENCE SPECTROMETRY FOR THE DETERMINATION OF ELEMENTAL CONCENTRATIONS IN SOIL AND SEDIMENT

SW-846 is not intended to be an analytical training manual. Therefore, method procedures are written based on the assumption that they will be performed by analysts who are formally trained in at least the basic principles of chemical analysis and in the use of the subject technology.

In addition, SW-846 methods, with the exception of required method use for the analysis of method-defined parameters, are intended to be guidance methods which contain general information on how to perform an analytical procedure or technique which a laboratory can use as a basic starting point for generating its own detailed Standard Operating Procedure (SOP), either for its own general use or for a specific project application. The performance data included in this method are for guidance purposes only, and are not intended to be and must not be used as absolute QC acceptance criteria for purposes of laboratory accreditation.

#### 1.0 SCOPE AND APPLICATION

1.1 This method is applicable to the in situ and intrusive analysis of the 26 analytes listed below for soil and sediment samples. Some common elements are not listed in this method because they are considered "light" elements that cannot be detected by field portable x-ray fluorescence (FPXRF). These light elements are: lithium, beryllium, sodium, magnesium, aluminum, silicon, and phosphorus. Most of the analytes listed below are of environmental concern, while a few others have interference effects or change the elemental composition of the matrix, affecting quantitation of the analytes of interest. Generally elements of atomic number 16 or greater can be detected and quantitated by FPXRF. The following RCRA analytes have been determined by this method:

Analytes	CAS Registry No.
Antimony (Sb)	7440-36-0
Arsenic (As)	7440-38-0
Barium (Ba)	7440-39-3
Cadmium (Cd)	7440-43-9
Chromium (Cr)	7440-47-3
Cobalt (Co)	7440-48-4
Copper (Cu)	7440-50-8
Lead (Pb)	7439-92-1
Mercury (Hg)	7439-97-6
Nickel (Ni)	7440-02-0
Selenium (Se)	7782-49-2
Silver (Ag)	7440-22-4
Thallium (Tl)	7440-28-0
Tin (Sn)	7440-31-5

TABLE 1  
EXAMPLE INTERFERENCE FREE LOWER LIMITS OF DETECTION

Analyte	Chemical Abstract Series Number	Lower Limit of Detection in Quartz Sand (milligrams per kilogram)
Antimony (Sb)	7440-36-0	40
Arsenic (As)	7440-38-0	40
Barium (Ba)	7440-39-3	20
Cadmium (Cd)	7440-43-9	100
Calcium (Ca)	7440-70-2	70
Chromium (Cr)	7440-47-3	150
Cobalt (Co)	7440-48-4	60
Copper (Cu)	7440-50-8	50
Iron (Fe)	7439-89-6	60
Lead (Pb)	7439-92-1	20
Manganese (Mn)	7439-96-5	70
Mercury (Hg)	7439-97-6	30
Molybdenum (Mo)	7439-93-7	10
Nickel (Ni)	7440-02-0	50
Potassium (K)	7440-09-7	200
Rubidium (Rb)	7440-17-7	10
Selenium (Se)	7782-49-2	40
Silver (Ag)	7440-22-4	70
Strontium (Sr)	7440-24-6	10
Thallium (Tl)	7440-28-0	20
Thorium (Th)	7440-29-1	10
Tin (Sn)	7440-31-5	60
Titanium (Ti)	7440-32-6	50
Vanadium (V)	7440-62-2	50
Zinc (Zn)	7440-66-6	50
Zirconium (Zr)	7440-67-7	10

Source: Refs. 1, 2, and 3  
These data are provided for guidance purposes only.

**Enclosure C**

**XRF Spectrum**

**LA-UR 09-08094**

**Previously submitted as part of Enclosure 1 of letter dated  
February 23, 2010, ENV-RCRA-10-040**

Counts/Sec

117.67

105.90

94.14

82.37

70.60

58.84

47.07

35.30

23.53

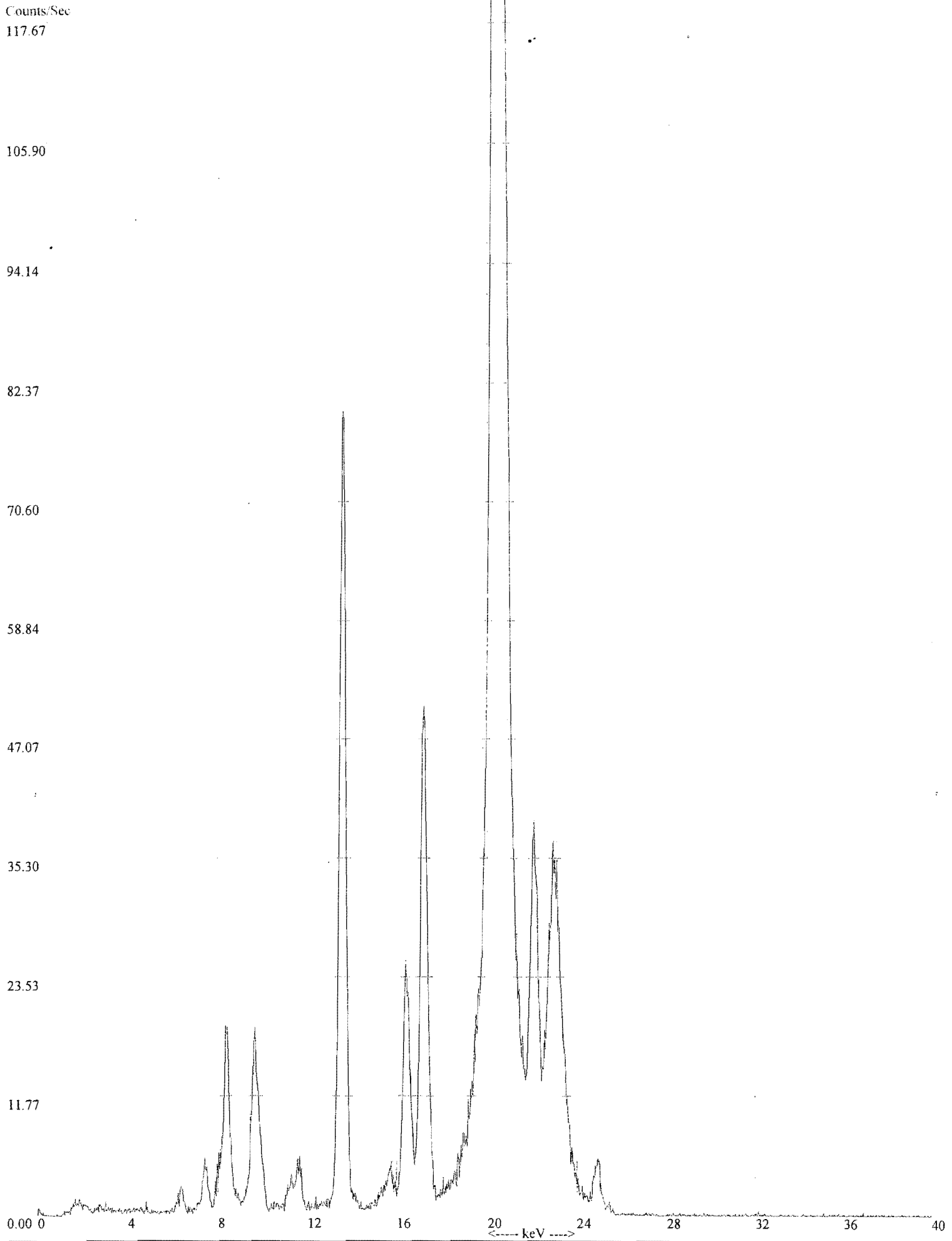
11.77

0.00

0 4 8 12 16 20 24 28 32 36 40

keV

07/05/10 09:02:10



**Enclosure D**

**LANL Waste Profile Form #41682**

**LA-UR 10-06946**



## LOS ALAMOS NATIONAL LABORATORY WASTE PROFILE SYSTEM

WPF #: 41682

19-Oct-2010 06:28 AM

(Version: 0)

p.1

Generator :	<b>GARCIA, EDUARDO</b>	MS :	<b>G730</b>	PH :	<b>6670794</b>	Z#:	<b>102478</b>
WMC :	<b>RODRIGUEZ, JOSEPH</b>	MS :	<b>J965</b>	PH :	<b>5056653009</b>	Z#:	<b>114183</b>
Contact :							
RCRA Rev :	<b>ORTEGA JOSE D</b>	MS :	<b>J496</b>	PH :	<b>5056650833</b>	Z#:	<b>108039</b>
Status :	<b>ACTIVE</b>	Activation Date :	<b>02/22/2010</b>	Expiration Date:	<b>02/22/2011</b>		
Group :	<b>PMT-1</b>	TA :	<b>03</b>	Bldg :	<b>000029</b>	Room :	<b>9163</b>

You are required to keep a copy of the WPF(s) in your files for at least three years. This WPF(s) is valid for one year or as long as the composition of the waste you have characterized remains the same. Should your waste change, please submit a new WPF to Waste Acceptance Group.

Waste Accumu : **Satellite Accumulation Area Site ID# 1347**  
 Method of Char : **Acceptable Knowledge Documentation Number: WING 9 HOTCELL**

Waste Type : **Process Waste/Spent Chemical/Other**  
 Waste Classes: **RCA Waste - RCA Waste**  
                   **RAD Waste - Radioactive-LL**

Waste Category: **Inorganic**

Waste Sources : **Research/Development/Testing**

Waste Matrix : **Solid**

Matrix Type : **Heterogeneous**

Process Desc :  
 THE PROCESS USES IRRADIATED MATERIALS TO OBTAIN SAMPLES FOR MECHANICAL TESTS ON THE PROPOSED REACTOR MATERIALS. THE OBJECTIVE IS TO ASSESS THE IMPACT OF THE PROTOTYPIC ENVIRONMENTAL PARAMETERS OF RADIATION AND TEMPERATURE ON THE MATERIALS PROPERTIES, PARTICULARLY THE DUCTILITY.

Waste Desc : AFTER SAMPLES WERE REMOVED, THE LEAD SHIELDING AND SOME STRUCTURAL MATERIALS (ALUMINUM, STAINLESS STEEL) BECAME WASTE.

Ignitability : **Not ignitable**

Corrosivity : **Non-aqueous**

Reactivity : **Non-reactive**

Boiling Point : **Not applicable**

Toxicity Characteristic Metals:

Contaminant	Method	Limit	Min	Max	Unit
<b>LEAD</b>	<b>AK</b>		<b>50000</b>	<b>1000000</b>	<b>PPM</b>

Toxicity Characteristic Organic Compounds: N/A

Additional Chemical Constituents and Contaminants:

CAS NO	Constituent	MIN	MAX	UOM
	<b>STAINLESS STEEL</b>	<b>2</b>	<b>5</b>	<b>%</b>
	<b>ALUMINUM</b>	<b>2</b>	<b>5</b>	<b>%</b>

LOS ALAMOS NATIONAL LABORATORY  
WASTE PROFILE SYSTEM

WPF #: 41682

19-Oct-2010 06:28 AM

(Version: 0)

p.2

LDR and Underlying Hazardous Constituents Information

Non-Wastewater/Wastewater Category: **Non Wastewater**

## WASTE CHARACTERIZATION INFORMATION

Radioactivity Category : **RADIOACTIVE-LL**RCRA Category : **HAZARDOUS WASTE**

Secondary Info : N/A

Waste Classification : **MIXED LOW-LEVEL WASTE**Waste Acceptances : **Area L/G Mixed Low-Level Acceptance**EPA Hazardous Waste Code : **D008**

Notification Of Underlying Hazardous Constituents:

Constituents**Lead**

## LOS ALAMOS NATIONAL LABORATORY WASTE PROFILE SYSTEM

WPF #: 41682

19-Oct-2010 06:28 AM

(Version: 0)

p.3

### GWCP Information

#### Section 1 - Waste Prevention/Minimization (answer all questions)

Can hazard segregation, elimination, or material substitution be used?

Yes\*     No

Can any of the materials in the waste stream be recycled or reused?

Yes\*\*     No

Has waste minimization been incorporated into procedures or other process controls?

Yes     No

Can this waste be generated outside a RCA?

Yes\*     No     N/A

\*Provide Comment

#### Section 6 - Work Control Documentation (answer all questions)

Do the procedures for this process cover how to manage this waste?

Yes     No (Provide comments)

Do the procedures for this process cover controls to prevent changes to waste constituents and concentrations or addition or removal of waste?

Yes     No (Provide comments)

#### Section 7 - Package and Storage Control

Describe how the waste will be packaged in according to the applicable WAC:

WILL BE PACKAGED ACCORDING TO WAC.

Identify the storage management controls that will be used for this waste stream: (check all that apply)

Tamper indication devices:

Limited use locks with log-in for waste

Locked cabinet or building

Other (describe)

#### Section 8 - Waste Certification Statements (check only one)

Waste appears to meet WAC chapter for:

MLLW

Waste needs exception/exemption for treatment, storage, or disposal at:

Waste does not meet the criteria for any known TSDF, (DOE approval is required. Contact the Waste Management Program Office for assistance.)

Estimated Annual Volume (m3):                      .01



**Enclosure E**

**LANL Waste Data Form Manifest # 79048**

**Uniform Hazardous Waste Manifest # 000369191**

**LA-UR 10-06946**

DOSE LABEL

<b>Waste Data Form</b>			
Container#: <b>C10212533</b>  C10212533	Manifest #: <b>79048</b>  79048	Accumulation Start Date: Jun. 9, 2010	
*Waste Verification*		54-0224	
Shipping Name: <b>WASTE RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-II) NON FISSILE</b>			
Hazard Class: <b>7</b>	DOT ID#: UN3321	Packing Group:	
Secondary Label:			
Technical Name:			
Additional Desc:		ERG#: 162	
Haz Substance:		LSA/SCO Group: LSA-II	
Proper Container for Material?	<input type="checkbox"/> Y <input type="checkbox"/> N	Inner Receptacle(s) Closed?	<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
Is Outer Container in Good Condition?	<input type="checkbox"/> Y <input type="checkbox"/> N	Absorbent Used?	<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
Outer Container Property Closed?	<input type="checkbox"/> Y <input type="checkbox"/> N	Packed by Generator?	<input type="checkbox"/> Y <input type="checkbox"/> N
Location Code: G6	Bldg: 54-0224	Other Con #: 10139954	<i>130 mR/hr - 5 mR/hr at 1 m 11 5</i>
Row:	Col:	Layer:	
OnSite Manifest: 79048 OnSite Location: AREAG Transported By: LANS Receive Date: Other Document: Area G Location: PT		Container Type: DM Gross Container Wgt: 900 P Volume: 30 G Net Wgt: 243.6 Kg	
Offsite TSDF: Transported By: Ship Date: TSDF Date: Other Document: Destruct#/Date:		DOT Checked By:  Check List Complete & P/U by: / Load Check By/Date: / Pickup Update Check By: Offsite Check By/Date:  Update By/Date: Final Update Check By:	
<b>Item Id</b>			
10139954 (IRRADIATED MATERIAL) AFTER SAMPLES WERE REMOVED, THE LEAD SHIELDING AND SOME STRUCTURAL MATERIALS (ALUMINUM, STAINLESS STEEL) BECAME WASTE. WDR: 3026853 Reviewed By: 102337 Data Entry By: 193789 Phone: 505-667-0794 WasteType Code: M1- CHEMICAL/RAD WASTE Generator: GARCIA EDUARDO Grp: WMC: SANDOVAL SUNEE Z#: 193789 Weight: 100 Pound Phy_State: S Volume: 5 Gallon WPF: 41682 ✓ Classification: MIXED LOW-LEVEL WASTE WDR Area: (START DATE: ) Secondary: TA: 03 Bldg: EPA Code: D008 LEAD RLSS STP Code: STP Version: STP Vol (m3):			

HRTF #: 10083101

80630

Form Approved. OMB No. 2050-0039

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number <b>NR0890010515</b>	2. Page 1 of <b>3</b>	3. Emergency Response Phone <b>(505) 667-6211</b>	4. Manifest Tracking Number <b>000369191 JJK</b>				
5. Generator's Name and Mailing Address <b>LANS, LLC for US DOE P.O. Box 1663, MS J598, Tamer Amin Los Alamos, NM 87545 (505) 665-6528</b>		Generator's Site Address (if different than mailing address) <b>LANS, LLC for US DOE Tony Bishop, TA-54, MS-J595 Los Alamos, NM 87545</b>							
6. Transporter 1 Company Name <b>HITTHAN TRANSPORTATION SERVICES, INC.</b>		U.S. EPA ID Number <b>TRD987783065</b>							
7. Transporter 2 Company Name		U.S. EPA ID Number							
8. Designated Facility Name and Site Address <b>Energy Solutions LLC Interstate 80, Exit 49 Clive, UT 84029 (435) 884-0155</b>		U.S. EPA ID Number <b>UTD982598898</b>							
9a. HM		9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))		10. Containers - No. Type		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes	
X	UN3321, WASTE RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-II) FISSILE-EXCEPTED, 7, AN241, PU238, PU239, 3.00E-06 TBq		1	IRUH - DN	43	K		D006	D008
X	UN3321, WASTE RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-II) FISSILE-EXCEPTED, 7, AN241, PU238, PU239, 1.31E-05 TBq		1	IRUH - DN	88	K		D006	D008
X	UN3321, WASTE RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-II) FISSILE-EXCEPTED, 7, AN241, PU238, PU239, U235, U238, 8.56E-06 TBq		1	IRUH - DN	183	K		D006	D008
X	UN3321, WASTE RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-II) FISSILE-EXCEPTED, 7, AN241, PU238, PU239, U235, U238, 1.54E-05 TBq		1	IRUH - DN	90	K		D006	D008 D011
14. Special Handling Instructions and Additional Information <b>LINE #1 ERG #:162, CSWP #:</b> <b>LINE #2 ERG #:162, CSWP #:</b> <b>LINE #3 ERG #:162, CSWP #:</b> <b>LINE #4 ERG #:162, CSWP #:</b>									
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.									
Generator's/Officer's Printed/Typed Name <i>[Signature]</i>					Signature <i>[Signature]</i>		Month Day Year <i>12/21/10</i>		
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____									
17. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Typed Name <i>[Signature]</i> Signature <i>[Signature]</i> Month Day Year <i>10/10/10</i> Transporter 2 Printed/Typed Name _____ Signature _____ Month Day Year _____									
18. Discrepancy 18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection Manifest Reference Number: _____ U.S. EPA ID Number _____									
18b. Alternate Facility (or Generator) _____ U.S. EPA ID Number _____ Facility's Phone: _____									
18c. Signature of Alternate Facility (or Generator) _____ Month Day Year _____									
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems) 1. _____ 2. _____ 3. _____ 4. _____									
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a Printed/Typed Name _____ Signature _____ Month Day Year _____									

HNTF #: 10083101

80630

Form Approved. OMB No. 2050-0039

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b> (Continuation Sheet)		21. Generator ID Number <b>KM0890010515</b>	22. Page <b>2 of 3</b>	23. Manifest Tracking Number <b>000369191JJK</b>				
24. Generator's Name <b>LANS, LLC for US DOE P.O. Box 1663, MS J598, Tamer Amin Los Alamos, NH 87545</b>								
25. Transporter _____ Company Name						U.S. EPA ID Number		
26. Transporter _____ Company Name						U.S. EPA ID Number		
27a. HM	27b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers		29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
		No.	Type					
X	5 UN3321, WASTE RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-II) FISSILE-EXCEPTED, 7, AN241, PU238, PU239, U238, 2.31E-05 TBq	1	DRUM - DN	159	K	0006	0008	
X	6 UN3321, WASTE RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-II) FISSILE-EXCEPTED, 7, AN241, PU238, PU239, U235, U238, 7.03E-06 TBq	1	DRUM - DN	79	K	0006	0008	
X	7 UN3321, WASTE RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-II) FISSILE-EXCEPTED, 7, AN241, PU238, PU239, U235, U238, 1.10E-05 TBq	1	DRUM - DN	165	K	0006	0008	
X	8 UN3321, WASTE RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-II) FISSILE-EXCEPTED, 7, AN241, PU238, PU239, U235, 3.86E-06 TBq	1	DRUM - DN	73	K	0007	0008	0011
X	9 UN3321, WASTE RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-II) FISSILE-EXCEPTED, 7, AN241, PU238, PU239, U235, 1.38E-05 TBq	1	DRUM - DN	83	K	0007	0008	0011
X	10 UN3321, WASTE RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-II) FISSILE-EXCEPTED, 7, AN241, PU238, PU239, U235, 9.17E-06 TBq	1	DRUM - DN	113	K	0007	0008	0011
X	11 UN3321, WASTE RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-II) FISSILE-EXCEPTED, 7, AN241, PU238, PU239, U235, 1.75E-05 TBq	1	DRUM - DN	81	K	0007	0008	0011
X	12 UN3321, WASTE RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-II) FISSILE-EXCEPTED, 7, AN241, PU238, PU239, U235, 1.70E-05 TBq	1	DRUM - DN	155	K	0007	0008	0011
X	13 UN3321, WASTE RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-II) FISSILE-EXCEPTED, 7, AN241, MS56, PU238, PU239, U235, U238, 7.37E-05 TBq	1	BOX - CN	740	K	F001	F002	F005
X	14 UN3321, WASTE RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-II) NON FISSILE, 7, B1207, C060, KA22, 6.99E-03 TBq	1	DRUM - DN	409	K	0008		
32. Special Handling Instructions and Additional Information LINE #5 ERG #:162, OSWP #: _____ LINE #6 ERG #:162, OSWP #: _____ LINE #7 ERG #:162, OSWP #: _____ LINE #8 ERG #:162, OSWP #: _____ LINE #9 ERG #:162, OSWP #: _____ LINE #10 ERG #:162, OSWP #: _____ LINE #11 ERG #:162, OSWP #: _____ LINE #12 ERG #:162, OSWP #: _____ LINE #13 ERG #:162, OSWP #: _____ LINE #14 ERG #:162, OSWP #: _____								
33. Transporter _____ Acknowledgment of Receipt of Materials Printed/Typed Name _____ Signature _____ Month _____ Day _____ Year _____								
34. Transporter _____ Acknowledgment of Receipt of Materials Printed/Typed Name _____ Signature _____ Month _____ Day _____ Year _____								
35. Discrepancy _____								
36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)								

RRTF #: 10083101

80630

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

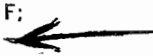
Form Approved. OMB No. 2050-0039

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b> (Continuation Sheet)		21. Generator ID Number <b>NH0890010515</b>	22. Page <b>3 of 3</b>	23. Manifest Tracking Number <b>000369191JJK</b>			
24. Generator's Name <b>LANS, LLC for US DOE P.O. Box 1663, MS J598, Tamer Amin Los Alamos, NH 87545</b>							
25. Transporter _____ Company Name				U.S. EPA ID Number			
26. Transporter _____ Company Name				U.S. EPA ID Number			
GENERATOR	27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers		29. Total Quantity		
			No.	Type	30. Unit WL/Vol.	31. Waste Codes	
	X	<del>15 UN3321, WASTE RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY LSA-II FISSILE-EXCEPTED, 7, AN241, PU238, PU239, U238, 2.31E-05 TBq</del>	1	DRUM - DF	146	K	2006 2006
	X	16 HAZ077, HAZARDOUS WASTE, SOLID, H.O.S., (CONTAINS CADMIUM, LEAD & SILVER), 9, III	1	DRUM - DF	82	K	2006 2006 2011
	X	17 HAZ077, HAZARDOUS WASTE, SOLID, H.O.S., (CONTAINS LEAD & SILVER), 9, III	1	DRUM - DF	128	K	2006 2011
	X	18 HAZ077, HAZARDOUS WASTE, SOLID, H.O.S., (CONTAINS LEAD), 9, III	1	DRUM - DF	146	K	2006
X	19 HAZ077, HAZARDOUS WASTE, SOLID, H.O.S., (CONTAINS LEAD), 9, III	1	DRUM - DF	8	K	2006	
32. Special Handling Instructions and Additional Information LINE #15 ERG #:162, OSWP #: _____                      LINE #16 ERG #:171, OSWP #: _____                      LINE #17 ERG #:171, OSWP #: _____                      LINE #18 ERG #:171, OSWP #: _____                      LINE #19 ERG #:171, OSWP #: _____							
TRANSPORTER	33. Transporter _____ Acknowledgment of Receipt of Materials						
	Printed/Typed Name	Signature			Month	Day	Year
DESIGNATED FACILITY	34. Transporter _____ Acknowledgment of Receipt of Materials						
	Printed/Typed Name	Signature			Month	Day	Year
35. Discrepancy							
36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							



**CONTAINER LISTING FOR MANIFEST NO: 80630****PAGELINE CONTAINERS****Page: 1**

1	1	C10212069	55 G
1	2	C10212070	55 G
1	3	C10212333	85 G
1	4	C10209833	30 G
2	1	C10210525	55 G
2	2	C10210861	30 G
2	3	C10213641	55 G
2	4	C10212942	85 G
2	5	C10212939	55 G
2	6	C10212941	55 G
2	7	C10212940	55 G
2	8	C10212938	55 G
2	9	C10210874	93.28 F;
2	10	C10212533	30 G
3	1	C10210823	55 G
3	2	C10213639	55 G
3	3	C10213642	55 G
3	4	C10213557	30 G
3	5	C10211555	5 G



**Enclosure F**

**ENV-RCRA HWSA Update Forms**

**LA-UR 10-06946**

From: ENV-SWRC\_Web\_Page@hsr-web2.lanl.gov  
 Subject: ENV-SWRC HWSA Registration Form  
 To: undisclosed-recipients::

HWTS Registration From~Wayne Taylor  
 Status~New Location  
 Clearance Level~L  
 FMU Number~9  
 OU Number~  
 Location (TA-Building-Room-Other Loc); ~3 - 29 - 9163 - 30 Gallon Drum in cell 11  
 Date~11/10/05  
 Contact Z-Number~092052  
 Contact Name~Wayne Taylor  
 Responsible Group~NMT-11~MS G730~ Phone ~ 7-8297  
 Facility Type~SAA  
 Special Waste Area Comments: ~  
 PCB Area Comments: ~  
 Used Oil Area Comments: ~  
 UWA Storage ~ , , ,  
 SAA At or Near Point of Generation~Yes  
   SAA Process description~  
   Hazards : Solids ,  
 Less Than 90 Day Storage Area  
   Proper communication or alarm systems ~  
   Proper fire protection equipment ~  
   Proper spill control ~  
   Proper decontamination equipment ~  
   RCRA Personnel Training~  
   < 90 Process description~  
   Hazards :  
 Do you need a sign~No  
 Do you generate mixed waste~Yes  
 Waste Management Coordinator Name : ~100953~Name : Staroski Richard C  
 Comments~

Date: 11/14/05  
 Site ID: 3181  
 Comments: New Site  
 Initials: X

From: ENV-SWRC\_Web\_Page@hsr-web2.lanl.gov  
Subject: ENV-SWRC HWSA Update Form

HWSA Update Accumulation Request

Update Type~Generator

Site ID~3181

Old Location Information ~03 - 0029 - 9163 - 30 gallon drum in cell 11

New Location Information ~03 - 0029 - 9163 -

Old Owner Information ~Taylor Wayne A - 092052 - PMT-1 - 6678297

New Owner Information ~Ric Mason - 096081 - PMT-1 - E505 - 5-4493

Old Waste Management Coordinator~Staroski Richard C - 100953 - WS-WA - 6656851

New Waste Management Coordinator~ - - -

Date:~

Comments:~

Date: 11/7/06  
Site ID: 3181  
Comments: update  
Initials: RM

From: ENV-RCRA\_Web\_Page@hsr-web2.lanl.gov  
Subject: ENV-RCRA HWSA Update Form  
To: undisclosed-recipients;

**HWSA Update Accumulation Request**

Update Type~Generator

Site ID~3181

Old Location Information ~03 - 0029 - 9163 - 30 gallon drum in cell 11

New Location Information ~03 - 0029 - 9163 -

Old Owner Information ~Mason Richard E - 096081 - PMT-1 - 6654493

New Owner Information ~Bill Crooks - 183540 - PMT-1 - G-730 - 5-8781

Old Waste Management Coordinator~Staroski Richard C - 100953 - WES-WA - 6656851

New Waste Management Coordinator~ - - -

Date:~

Comments:~

Date: 11/26/07  
Site ID: 3181  
Comments: [Signature]  
Initials: [Signature]